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CONSECUTIVE CLAUSES IN EUROPEAN PORTUGUESE: A SYNTACTIC APPROACH¹

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1. Introduction

Consecutive clauses exhibit syntactic properties that in several respects remain relatively unknown. Assuming the current generative framework, we will analyse two main types of consecutives, mainly focussing on European Portuguese: the consecutives with an antecedent, illustrated in (1), which present an adjectival (A), adverbial (ADV), nominal (N) or verbal (V) expression affected by an overt degree or quantifying expression, and the so-called free consecutives, whose related graded expression is not overtly expressed in the discursive unit where the consecutive clause occurs (see (2)).

- (1)a. *Ele é tão alto_A que a sua cabeça toca no teto.*
he is so tall that the his head touches in.the ceiling
'He is so tall that his head touches the ceiling.'
- b. *Ela trabalhou tão bem_{ADV} que escreveu dois capítulos da tese.*
she worked so well that wrote two chapters of.the thesis
'She worked so well that she wrote two chapters of her thesis.'
- c. *Eu li tantos textos_N que tenho os olhos cansados.*
I read so.many texts that have the eyes tired
'I read so many texts that my eyes are tired.'
- d. *Ela trabalhou_V tanto que escreveu dois capítulos da tese.*
she worked so.much that wrote two chapters of.the thesis
'She worked so much that she wrote two chapters of her thesis.'

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- (2) *Os miúdos portaram-se mal. De tal modo que os pais foram*
 the kids behaved badly. In such.a way that the parents were
chamados à escola.
 called to.the school.
 ‘The kids behaved badly. In such a way that their parents have been
 instated to go to the school.’

In languages like English, Spanish, Italian or Portuguese, antecedent finite consecutive clauses may also have close correlate infinitival constructions. As exemplified in (3), for European Portuguese (see also its translation in English), these clauses lack the prototypical degree items affecting the modified expression (e.g. *tão* ‘so’), which are replaced by other adverbials (e.g., *suficientemente* ‘enough’) and present an infinitival clause. In Portuguese, this infinitival clause is headed by the prepositional item *para* ‘for’:

- (3) *Ela é suficientemente forte para aguentar esse trabalho.*
 she is enough strong for stand this work
 ‘She is strong enough to stand this work.’

Syntactic studies have often not clearly distinguished finite and non-finite antecedent consecutive clauses from comparatives, all of them being considered as degree clauses (e.g. Abney 1987; Corver 1997a, b; Grosu & Horvath 2006). Additionally, free consecutives have been mostly neglected. Yet, semantically, all these clauses may be classified as consecutives, since they share the property of presenting a quantification over properties (cf. (1a, b) and (3)), individuals (cf. (1b)) or situations (2) and express a consequence or a result of that quantification (e.g. Álvarez 1999, for Spanish; Giusti 1991, for Italian; Fonseca 1994, Cunha *et al.* 2010, Marques 2013, for EP).

However, from a syntactic point of view, the subtypes mentioned above show distinct properties and raise several questions: (i) What is the categorial status of the consecutive connector (*que, para*)? (ii) How can the correlation between the expression of quantification / intensity and the second clause be described? (iii) How can we account for the word order in consecutive clauses? (iv) Is it possible to propose a unified analysis for the different types of consecutives?

In this study we will propose a syntactic account of consecutives in European Portuguese, extending the analysis of finite consecutives with antecedent to non-finite consecutives and free consecutives. Regarding consecutives with antecedent, we will explore Corver’s (1993, 1997a, b, 2013) hypothesis of a split degree system and the raising of the gradable

expression, together with Kennedy's (1997, 1999) idea that consecutives are adjuncts to DegP and form a constituent with Deg at LF; in this way we avoid the need of a mechanism of extraposition to account for the consecutive construction word order. We will extend the core proposals of this analysis to free consecutives; however, some adjustments are made in order to capture the fact that they occur in juxtaposition to the clause which presents the gradable expression (see (2)). In effect we assume that while in antecedent consecutives the relation between the antecedent clause and the consecutive involves subordination/ hypotaxis, free consecutives establish with the related sentence a paratactic relation.

The paper is structured as follows: section 2 analyses the properties of antecedent consecutives: subsection 2.1 is devoted to the analysis of finite antecedent consecutives; subsection 2.2 adapts this approach to non-finite consecutives. Section 3 extends the previous analysis to free consecutives, retaining most of the core traits of finite antecedent consecutives. Finally, section 4 presents our main conclusions.

2. Antecedent consecutive clauses

In this section we will try to propose a syntactic analysis for antecedent consecutives in European Portuguese, both finite and non-finite. In subsection 2.1, we will describe the properties of these complex sentences and discuss the treatments that have been proposed for their correlates in other languages, in order to establish our approach to finite consecutive clauses in European Portuguese. In subsection 2.2 we extend this analysis to non-finite antecedent consecutives.

2.1. Consecutives are CPs dependent from Degree/Quantifier expressions

Finite consecutive clauses are CPs headed by a complementizer with [+finite, +declarative] features (in Portuguese *que* 'that'), which depend on a sentence presenting an expression of quantity or degree (*tão* 'so', *tanto* 'so many/so much', *tal* 'such a') affecting a gradable or a scalar expression of variable categorial nature: A, Adv, N and V (for European Portuguese, see Brito 2003; Cunha *et al.* 2010; Fonseca 1994; Marques, 2013; Martinho 2007), as shown in (1) and (4):

- (4) a. *Eu estou tão terrivelmente cansada que não me consigo mexer.*
 I am so terribly tired that not CL.1SG can move
 'I am so terribly tired that I cannot move.'

- b. *Ela falava tão lentamente_{ADV} que ele adormeceu.*
 she spoke so slowly that he fell.asleep
 ‘She spoke so slowly that he fell asleep.’
- c. *O miúdo fez tal berreiron_N que a mãe lhe pegou ao*
 the kid made such.a blubber that the mother CL.3SG took in.the
colo.
 arms
 ‘The kid made such a blubber that his mother took him in her harms.’
- d. *O miúdo cresceu tanto que não há roupa que lhe sirva.*
 the kid grew so.much that not there.is cloth that CL.3SG fit
 ‘The kid grew so much that his clothes do not fit him anymore.’

The relation between the CP and the related sentence is classically classified as a case of subordination, akin to the one established by the relative clause with its antecedent (cf. Abney 1987).

To syntactically account for the dependency of consecutives with respect to the intensity expression and the word order they exhibit, different hypotheses have been proposed in the literature.

2.1.1. The consecutive CP as a sister of Deg and A

Abney (1987), analysing the structure of the AP with a gradable adjective, proposes that the projection of A corresponds to the functional category Deg(ree)P. He emphasises the similarities between the relative clauses and what he calls “extent clauses”, where he includes the comparatives and finite consecutives like (5):

- (5) *Ele é tão trabalhador que tem sempre boas notas.*
 he is so hardworking that has always good marks
 ‘He is so hardworking that he always gets good marks.’

Abney (1987: 315) suggests a tripartite structure based on the relation of “sisterhood”:

- (6) [_{DegP} [Deg] [A] [CP]]

This structure tries to capture that consecutives are dependent from the degree expression and that they modify scalar or gradable adjectives. However, this analysis presents several problems. In particular, it proposes a tripartite structure of DegP, therefore it does not adequately analyse the correlation between the Degree (Quantifying) expression and the finite clause.

In addition, like many other authors (e.g. Bhatt & Pancheva 2004; Corver 1993, 1997a, b; Kennedy 1997, 1999), Abney disregards the fact that consecutives, like comparatives, may also appear with gradable predicates, other than adjectives, as shown in (7) for nouns and verbs:

- (7) a. *O João deu tantas aulas que ficou cansadíssimo.*
 the João gave so.many courses that got very.tired
 ‘João lectured so many courses that he got very tired.’
 b. *O miúdo cresceu tanto que não há roupa que lhe sirva.*
 the kid grew so.much that not there.is cloth that CL.3SG fit
 ‘The kid grew so much that his clothes do not fit him anymore.’

2.1.2. The finite consecutive as a complement of Deg/Q

Developing ideas from Bresnan (1973) and Heim (2000), Bhatt & Pancheva (2004) propose an alternative to (8) for AP comparatives: they consider that the comparative clause is selected as a complement of a Deg(ree) head, analysed as a category that intrinsically includes quantifying features, which selects for the degree clause. According to the authors, this DegP is merged as the specifier of the gradable predicate (cf. Bhatt & Pancheva 2004: 9):

- (8) [AP [DegP<+quant>[Deg<+quant>][degree clause]] [A' A]]

This structural configuration will straightforwardly account for the selection restrictions that the Deg item impose on the degree clause (ex: *as...as*; *more...than*, etc). However, assuming that in languages like English or Portuguese the specifier typically precedes the gradable predicate, this analysis has the disadvantage of not being able to account for the word order in which the degree clause surfaces. In fact, considering the consecutive CPs, without additional provisos, (8) would produce unacceptable sequences like those in (9), for European Portuguese, which should be contrasted with the sentences in (5) and (7) above:

- (9) a. **Ele é tão que tem sempre boas notas trabalhador.*
 he is so that has always good marks hardworking
 b. **O João deu tantas que ficou cansadíssimo aulas.*
 the João gave so.much that became very.tired classes
 c. **O miúdo tanto que não há roupa*
 the kid so.much that not there.is cloth
que lhe sirva cresceu.
 that CL.3SG fit grow

In order to prevent the discontinuity between the gradable predicate and the Deg words, extraposition should apply, as it has been proposed for comparative clauses. Accordingly, the consecutive CP would be moved and merged into a post-gradable predicate position, as shown in (10) for a sentence like (5):

- (10) *Ele é [AP [DegP[*tão*] [CP *que tem sempre boas notas*]] [A *trabalhador*]] =>*
 he is so that gets always good marks hardworking
*Ele é [AP [DegP [[*tão*]_{EBi} [A *trabalhador*]]] [CP *que tem sempre boas notas*]]*
 he is so hardworking that gets always good marks
 ‘He is so hardworking that he always gets good marks’.

However, extraposition is problematic in the current minimalist framework, which assumes that displacement should not be triggered only to obtain the surface order of the constituents, but for morphosyntactic or discursive /interpretative reasons.

Bhatt & Pancheva’s (2004) analysis of comparatives tries to overcome this problem. They assume that the DegP specifier of the gradable predicate is a quantified expression (cf. (11a)). Being a quantificational element, DegP must rise to a scope position, so it right adjoins to the maximal projection that contains the gradable predicate in overt Syntax, leaving a copy in its original position; due to morphological constraints, it is this lower copy that is spelled out (cf. (11b)). Finally, the degree CP is late merged as the complement of the raised unpronounced quantified DegP, as shown in (11c):

- (11) a. [AP [DegP<+Quant> [Deg*tão*]] [A' [A *alto*]]]
 b. [AP [AP [DegP<+Quant> [Deg*tão*]] [A' [A *alto*]]] [DegP<+Quant> [Deg~~*tão*~~]]]
 c. [AP [AP [DegP<+Quant> [Deg*tão*]] [A' [A *alto*]]] [DegP<+Quant> [Deg' [Deg~~*tão*~~] [degree clause]]]]]

This analysis accounts for the surface word order and provides a motivation for extraposition: the late merge of CP is not stipulated to obtain the correct word order, but is required for trace interpretation (as in Fox 2002 and Fox & Nissenbaum 1999). This approach also has several problems. In particular, the spell out of lower copies of movement is controversial. According to the current framework, in structures resulting from Internal Merge only the structurally prominent copy is pronounced, except in cases of covert movement (e.g. Chomsky 2013). However, assuming the derivation by phase, only after Transfer to the interface level of semantic interpretation (Logical Form), could DegP covertly move and right adjoin to AP. This would cause serious problems to the late merge of

the degree clause: if it applies at Logical Form, the degree clause will not be visible at the level of phonological interpretation (Phonetic Form).

Also, Grosu & Horvath (2006), developing a proposal by van Riemsdijk (1998), claim that, in some languages, the restriction on the position of adjectival complements and degree clauses may be not due to extraposition but to a “head-to-head adjacency effect”. Considering comparative clauses, they argue that there are languages where the degree expression may occur at the left of the adjective, as in Romanian (cf. (12)) and in Hungarian (cf. (13)), examples from Grosu & Horvath (2006):

- (12) a. *Ion este (exact) la fel de deștept ca tine.*
 Ion is just as of clever as you
 ‘Ion is (exactly) as clever as you.’
 b. (?) *Ion este [(exact) la fel ca tine] de deștept.*
 Ion is just as as you of clever
- (13) a. *Mari kevésbé magas [Jánosnál].*
 Mary less tall John-at
 b. *Mari [Jánosnál] kevésbé magas*
 Mary John-at less tall
 ‘Mary is less tall than John.’

These data suggest that in degree clauses, including comparatives and consecutive clauses, CP extraposition for scope reasons, as proposed by Bhatt & Pancheva, is not compatible with the derivation by phase approach and may even not be empirically motivated across languages.

2.1.3. The split degree system and consecutives as adjuncts to DegP

To overcome the word order problem without recourse to extraposition, Kennedy (1997, 1999) assumes that a degree adjectival construction is a DegP, headed by a degree word that selects the gradable predicate, AP, as its complement. The degree clause is conceived as a modifier of DegP, right merged to Deg’, as in (14).² According to Kennedy, the degree expression and the degree clause will form a unit only at LF:

² Notice, however, that Kennedy’s proposal does not account for word order in some types of comparatives, and, to keep the subordinate status of the degree clause, it has to resort to extraposition, as shown by the contrast between (i) and (ii):

- (i) Mary gives more candies to her children in a day than Susan in a month.
 (ii) *Mary gives [more candies [than Susan in a month]] to her children in a day.

(14) [_{DegP} [_{Deg'} Deg AP] [degree clause]]

Adopting this proposal for consecutives, a sentence like (15a) would be assigned the simplified representation in (15b):

- (15) a. *Ele é tão alto que a sua cabeça toca no teto.*
 he is so tall that the his head touches in.the ceiling
 ‘He is so tall that his head touches the ceiling.’
 b. *Ele é* [_{DegP} [_{Deg'} [_{Deg}tão] [_{AP}alto]] [_{CP}que a sua cabeça toca no teto]]

Still now, it has been assumed that degree clauses (i.e., comparative and consecutives) are related to a degree functional category, which presents inherent quantificational content. However, Corver (1997, 2013) based on data from English, Dutch, Welsh and other languages, proposed a split DegP analysis. He distinguished between DegP and QP, developing an idea from Bresnan (1973) about the distinction between quantifier-like degree words (*enough, more, less*) and determiner-like degree words (*as, so, too, how*). Corver also assumes that some adverbs, like *utterly* or *very* in English, are projected in the specifier position of QP, in expressions like (16):

- (16) a. ... so extremely poisonous
 b. ... so utterly confused that he fell off the podium
 c. ... how very long
 d. ... too much so....

Thus, Corver proposes a split degree system for comparatives and consecutives, where DegP dominates QP, as shown in (17):

(17) [_{DegP} Deg [_{QP} Q [_{AP}]]]

According to Corver (2013: 46), the comparative or consecutive clause is right merged as an adjunct to DegP, as illustrated in (18), an example from the author:

- (18) Fred was [_{DegP} [_{DegP} [_{Deg'} so [_{QP} utterly [_Q[Q-] [_{AP} confused]]]]] [_{CP} that he fell off the podium]]

See Matos & Brito (2002, 2008) for data on European Portuguese and arguments in favor of a syntactic analysis of comparatives in this language in terms of correlative coordination.

In sum, regarding consecutives, Corver's analysis of degree clauses, like the one presented in Kennedy (1997, 1999), directly accounts for the surface word order and overcomes the problem of extraposition, by assuming that the consecutive CP is a right adjunct of DegP.

Accepting this analysis, we propose for an example like (4a), here renumbered as (19a), the simplified representation in (19b):

- (19) a. *Eu estou tão terrivelmente cansada que não me consigo mexer.*
 I am so terribly tired that not CL.1SG can move
 'I am so terribly tired that I cannot move.'
 b. ... [DegP [DegP [Deg *tão* [QP *terrivelmente* [Q -] [AP *cansada*]]]] [CP *que não me consigo mexer*]

However, the split DegP analysis apparently faces a problem: how to account for sentences where only a quantifying word seems to occur in the DegP. This is the case of *more* or *less* in English comparatives (e.g., *She is more intelligent than we are*), or *tanto* 'so much' and *tantos* 'so many' in Portuguese consecutives:

- (20) a. *O atleta correu tanto que foi o primeiro a atravessar a meta.*
 the athlete run so.much that was the first to cross
 the mark
 'The athlete run so much that he was the first to cross the mark.'
 b. *Ele ganhou tantas maratonas que se tornou famoso.*
 he won so.many marathons that CL.3SG became famous
 'He won so many marathons that he became famous.'

As the examples in (20) show, *tanto* presents an invariable form that exhibits an adverbial interpretation (cf. (20a)), and a variable quantifier form that selects a nominal expression, with which it agrees in gender and number (cf. (20b)). We consider that the adverbial interpretation of *tanto* in (21a) results from the fact that it selects a null adverbial item, much in the same way as determiners are interpreted as pronouns whenever they select a *pro* complement in Romance languages:

- (21) a. *O atleta correu* [DegP [DegP [Deg -]i[QP [Q *tanto*]i [AdvP -]]] *que foi o primeiro* ...
 b. *O atleta ganhou* [DegP [DegP [Deg-]i [QP [Q *tantas*:] [NP *maratonas*]]] *que se tornou* ...

The English translations of the examples in (20) also suggest that these quantifying words accumulate a degree value. So, we assume that they

must be related to the Deg head that selects the QP in degree constructions. The association of Deg to Q can be viewed either as raising of Q-to-Deg to value the unspecified (uninterpretable) features of Deg, or as inheritance of the features of Deg by Q, under local agreement. Since Deg features seem to be interpretable, we believe that it is the inheritance of the features of Deg by Q that is at work (cf. Chomsky 2013).³

2.2. Non-finite consecutive clauses

Extending Abney (1987: 312), Álvarez (1999) for Spanish, Giusti (1991) for Italian, Brito (2003) and Marques (2013) for European Portuguese, we assume the existence of infinitival antecedent consecutive clauses⁴ introduced by the discontinuous expressions *suficientemente / bastante ...para*, ‘enough ... to’, *demasiado/demais... para* ‘too (much)...to’. The first term is an adverbial, whose meaning conveys a graded quantity that affects a gradable expression (a noun, an adjective or an adverbial) and *para* ‘for’ is a prepositional head that introduces the infinitival clause, whose verb may occur in the inflected infinitive, as in the examples (22a) from Marques (2013: 2169), or in the invariable infinitive, in control sentences, as in (22b):⁵

³ Notice that in the case of adjectival comparative clauses involving a degree affix, as *-er* in English, we assume that this affix is externally merged in Deg and the affixal properties of this degree morpheme trigger movement of the adjective from A-to-Q and from Q-to-Deg.

⁴ Marques (2013) takes these clauses as close to consecutives. Álvarez (1999) calls their correlates in Spanish as comparative consecutives. In fact, in this language, these clauses are introduced by the comparative connector *como* ‘as’ (e.g., *Amo demasiado a Gamones como para aplicarle sin más la dura letra de la Ley* ‘I love Gamones too much to compel him to merely accept the severe terms of the Law’, cf. Álvarez 1999: 3786).

⁵ Some infinitival consecutives allow the quantified expression to be covert (Fonseca 1994), when the predicate implicitly includes a gradable quantifying value, as, for instance, *tarde* ‘late’ in (i). However, the majority of gradable predicates require an overt quantifying expression to keep the consecutive interpretation of the non-finite clause, as illustrated in (ii), from Marques (2013:2169):

- (i) *É tarde para irmos ao cinema.*
 is late for go.INF.1PL to.the movies
 ‘It is late for us to go to the movies.’
- (ii) *#Há luz para conseguirmos ver nitidamente.*
 there.is light for reach.INF.1PL see clearly
 ‘There is light for us to see clearly.’

- (22) a. *Há bastante luz_N para conseguirmos ver nitidamente.*
 there.is enough light for succeed.INF.1PL see clearly
 ‘There is light enough for us to be able to see clearly.’
- b. *A Ana é suficientemente esperta_A para decifrar o enigma.*
 the Ana is enough clever for decode.INF the enigma
 ‘Ana is clever enough to decode the enigma.’
- c. *É demasiado tarde_{ADV} para ir ao cinema.*
 is too late for go.INF to.the movies
 ‘It is too late for us to go to the movies.’

With some gradable predicates, these non-finite consecutives have their own finite counterparts, where the prepositional connector *para* ‘for’ co-occurs with the complementizer *que* ‘that’ and the verb appears in the subjunctive, as illustrated in (23b):

- (23) a. *É demasiado cedo para nós rejeitarmos essa hipótese.*
 is too (much) soon for we reject.INF.1PL that hypothesis
 ‘It is too soon for us to reject that hypothesis.’
- b. *É demasiado cedo para que nós rejeitemos essa hipótese.*
 is too soon for that we reject.SUBJ.1PL that hypothesis
 ‘It is too soon for us to reject that hypothesis.’

This suggests that *para* ‘for’ in these consecutives keeps its full prepositional status and selects a CP headed by a Null complementizer in infinitival clauses and the complementizer *que* ‘that’ in finite clauses. This hypothesis is corroborated by the fact that most of these consecutives may be denoted by the expression *para isso* ‘for that’, where *para* selects the pronominal element *isso* and assigns case to it.

- (24) a. A: *Há bastante luz para conseguirmos ver nitidamente?*
 is.there enough light for reach.INF.1PL see clearly?
 ‘Is there light enough to see clearly?’
- B: *Sim, julgo que há bastante luz para isso.*
 yes, believe.1SG that there.is enough light for that
 ‘Yes, I believe that there is light enough for that.’
- b. A: *Achas que a Ana é suficientemente esperta para decifrar o enigma?*
 believe.2SG that the Ana is enough clever for
 decode.INF the enigma?
 ‘Do you think that Ana is clever enough to decode the enigma?’
- B: *Sim, penso que ela é suficientemente esperta para isso.*
 yes, think.1SG that she is enough clever for that
 ‘Yes, I think that Ana is clever enough to do that.’

- c. A: *É demasiado tarde para irmos ao cinema.*
 is too late for go.INF.1PL to.the movies
 ‘It is too late for us to go to the movies.’
 B: *Não, nunca é demasiado tarde para isso.*
 no, never is too late for that
 ‘No, it is never too late for that.’
- d. A: *Ela pensa que é demasiado cedo para que nós rejeitemos essa hipótese.*
 she thinks that is too soon for that we reject.SUBJ.1PL
 that hypothesis
 ‘She thinks that it is too soon for us to reject that hypothesis.’
 B: *Eu concordo que é demasiado cedo para isso.*
 I agree that is too soon for that
 ‘I agree that it is too soon for that.’

Nevertheless, there are infinitival consecutives where *para* ‘for’ has already grammaticalized as an infinitival complementizer. In these cases, as expected, *para* does not license any pronominal element denoting the consecutive:

- (25) A. *Esse trabalho é suficientemente perigoso para eu não o aceitar.*
 that job is enough dangerous for I not it
 accept.INF.1SG
 ‘That job is dangerous enough for me to reject it.’
 B. ??/**Sim, esse trabalho é suficientemente perigoso para isso.*
 yes, that job is enough dangerous for that

In sum, we may conclude that *para*-consecutive clauses are either PPs, whose P selects a CP (cf. (22), (23)) or *para* is a complementizer that heads an infinitival CP (cf. (25)). Therefore, we assume that in non-finite consecutives, C exhibits [+declarative] force and [–finite] features, as in (22),(23a) and (25), or C is instantiated by *que* ‘that’ and presents [+declarative] force and [+finite] features, as in (23b). The representations in (26b) and (27b) illustrate the structure of the consecutive CP, where *para* ‘for’ occurs as a preposition; (28) represents a case like (25A), where *para* has grammaticalized as a complementizer:

- (26) a. *É demasiado cedo para nós rejeitarmos qualquer das hipóteses.*
 is too soon for us to reject.INF.1PL any of.the hypotheses
 ‘It is too soon for us to reject any of the hypotheses.’
 b. *É demasiado cedo [PP [P para] [CP [C<+declarative, -finite> Ø] [TP nós rejeitarmos qualquer das hipóteses]]]*

- (27) a. *É demasiado cedo para que nós rejeitemos qualquer das hipóteses*
 is too soon for that we reject.SUBJ.1PL any of the hypotheses
 'It is too soon for us to reject any of the hypotheses.'
 b. *É demasiado cedo* [_{PP} [_P *para*]] [_{CP} [_C<<declarative, +finite> *que*]] [_{TP} *nós rejeitemos qualquer das hipóteses*]]]

- (28) *Esse trabalho é suficientemente perigoso* [_{CP} [_C<<declarative, -finite> *para*]] [_{TP} *eu não o aceitar*]]].

Let us now analyse consecutives with *demais* vs. *demasiado* 'too (much)'. Consecutives including *suficientemente* / *bastante* 'enough' and *demasiado* 'too (much)' typically occur before the gradable predicate, as illustrated in (29). However, *demais* 'too (much)' must occur after this predicate, as shown in (30) and (31):

- (29) a. *É {demasiado/ suficientemente/ bastante} cedo para sairmos.*
 is too (much)/enough/ enough soon/early for go.out.INF.1PL
 'It is {too soon/early enough} for us to go out.'
 b. *É cedo {*demasiado/?suficientemente/*bastante} para sairmos.*
 is soon/early too (much)/ enough/ enough for go.out.INF.PL
 'It is {too soon/early enough} for us to go out.'
- (30) a. *É cedo demais para sairmos.*
 is early too.much for go.out.INF.1PL
 'It is too early for us to go out.'
 b. **É demais cedo para sairmos.*
 Is too.much early for go.out.INF.1PL

Taking these data into account, we will try to adapt Corver's analysis of antecedent consecutives to the consecutive clauses under analysis in this section.

Considering the connection between these consecutives and the degree expression, we adopt Kennedy's (1997, 1999) and Corver's (2013) proposals that the consecutive clause adjoins to DegP. The gradable predicate is affected by the adverbials *suficientemente* or *bastante* (meaning 'as much as required') and *demasiadamente* or *demais* (meaning 'too much'), which, despite presenting a quantifier content, as their English correlates *enough* and *much* (cf. Corver 1997, 2013), also exhibit a

degree meaning, similar to the English degree words *as* and *too* (cf. Corver 1997, 2013). Then, their features are both related to Q and to Deg. Hence, these adverbials must be externally merged in Q, and inherit the features of Deg, by local agreement. Thus, an example like (3), repeated in (31), would be represented as in (32), in what concerns the structure of the consecutive clause:

- (31) *Ela é suficientemente forte para aguentar esse trabalho.*
 she is enough strong for stand.INF this work
 ‘She is strong enough to stand this work.’

- (32) [DegP [Deg+Deg_i]] [QP[Q *suficientemente*<+Deg>] [AP *forte*]]] [PP[CP
 [C<+declarative, -finite> *para*] [TP *aguentar esse trabalho*]]]

As for the contrasts in (30) and (33), the unavailability of (34) shows that *demais*, like *enough* in English, must be preceded by the gradable predicate.

- (33) a. *É cedo demais para sairmos.*
 is early too.much for go.out.INF.1PL
 ‘It is too early for us to go out.’
 b. *Ela é esperta demais para a conseguires enganar.*
 she is smart too.much for CL.3SG manage.INF.2SG fool
 ‘She is too smart for you to manage to fool her.’

- (34) a. **É demais cedo para sairmos.*
 is too.much early for go.out.INF.1PL
 b. **Ela é demais esperta para a conseguires enganar.*
 she is too.much smart for CL.3SG manage.INF.2SG fool

Elaborating on Corver’s (1997, 2013) for *enough* in English we admit that in (33) *demais* is externally merged in QP and the gradable predicate has to raise to adjoin to Q. Corver (2013:47-48) shows that some adjectives move higher than Q, raising from Q-to-Deg in degree constructions of many languages (Welsh, Italian, Modern Hebrew, Standard Arabic). Accepting these analyses, we propose that (33a) should be represented as in (35):

- (35) \acute{E} [DegP [DegP [Deg_i *cedo* [Deg_i]]][QP[Q \acute{e} [Q *demais*<+Deg>]] [AdvP \acute{e}]]] [PP *para*
 [CP [C<+declarative, -finite> \emptyset] [TP *sairmos*]]]]

Corver (1997:140) claims that *enough-inversion* is driven by an idiosyncratic property of *enough*. For the moment we will adopt this position for *demais* ‘too (much)’ in European Portuguese.

In sum, all types of antecedent consecutives under study in sections 2.1 and 2.2 behave like subordinate consecutive clauses and, in their core aspects, may be analysed in a similar way.

3. Free Consecutive clauses

Consecutive clauses also comprise what Giusti (1991) calls consecutives without antecedent or *free consecutives*; Álvarez (1999) includes them in the *peripheral consecutives*. Both authors assume that in these cases, the consecutive is related to the whole previous sentence.

According to Giusti, the free consecutive may occur as an adjunct modifier or as an independent sentence, as in the Italian examples in (36), from Giusti (1991). In contrast, Álvarez (1999: 3765) only presents cases where the consecutive and the quantifying expression occur in juxtaposition to the related clause, as shown in the Spanish example in (37):

- (36) a. *Stefano si è comportato male con il suo vicino, {tanto/*
 Stefano CL has behaved badly with the his neighbour, so.much/
a tal punto che l'altro non gli rivolge più la parola.
 to such point that the other non CL.3SG returns anymore any word
 ‘Stefano behaves badly with his neighbour, so much/ in such a way
 that this one does not speak to him anymore.’
- b. *Lavorò tanto. Quasi a tal punto che fu per lasciarci la pelle.*
 worked so.much. Almost to such point that was to leave the skin
 ‘He worked so much. In such a way that he almost died.’

- (37) [...] *su penúria de espíritu se agravaba com los años.*
 her lack of intelligent got.worst with the years.
Tanto que, quando se supo que Bayardo
 So.much that, when everyone came.to.know that Bayardo
San Román quería casarse com ella, muchos pensaron
 San Román wanted marry with her, many thought
que era perfidia de forastero.
 that was wickedness of foreigner
 ‘Her lack of intelligence got worst with age. In such a way that,
 when everyone came to know that Bayardo San Román wanted to
 marry her, many people thought that it was a foreigner’s
 wickedness.’

Giusti claims that the main difference between an antecedent consecutive and a free consecutive is that the former is selected by an adverbial (or adjectival) modifier of an element of the main clause, while the latter may be considered either as an adverbial clause (Giusti 1991:826) in adjunction to the main sentence, which does not depend on any of its elements, as in (36a), or as an independent clause related to a previous independent sentence, headed by the consecutive connector *a tal punto* ‘in such a way’, as in (36b), or *tanto* ‘so much’ (cf. Giusti 1991:829, 831).

Notice that Álvarez takes as peripheral consecutives, sentences like those in (38), where the quantifying expression fronts the consecutive sentence it modifies, forming a discontinuous constituent with the consecutive clause headed by *que* ‘that’.

- (38) a. *Tanto fue un ejemplo su salvación que los franceses*
 so.much was an example his rescue that the French
preguntaban cómo se había hecho.
 asked how CL.3SG had done
 ‘His rescue has been such an example that the French people asked how it had been done.’
- b. *Hasta tal punto la mística está en retroceso que la ciencia*
 in such.a point the mysticism is in retrogress that the science
acude en su apoyo.
 goes in its support
 ‘Mysticism is retrogressing so much that the science goes in its support.’

According to our view, not all the examples presented above are instances of free consecutives. This is clearly the case of (38), as evidenced by the fact that the degree/quantifying expressions do not occur next to the consecutive clauses.

In fact, we believe that (38a) and (38b) are instances of finite antecedent consecutives, which differ from those analysed in section 2.1 only by the fact that *tanto* ‘so much’ and *hasta tal punto* ‘in such a way’ overtly quantify over the situations expressed by the ~~whole propositions~~, and therefore occupy the first position of the antecedent sentence. The representation in (39) illustrates the analysis proposed for sentences like (38):

- (39) [_{DegP} [_{DegP/QP} {tanto/hasta tal punto} [_{CP/TP}]] [_{CP} que ...]]

We will only take as free consecutives sentences like those in (36) and (37), illustrated for European Portuguese in (40a,b). In these examples, the

free consecutive allows for the recovering of the content of the previous sentence and both can be paraphrased as in (40c):

- (40) a. *O misticismo está em retrocesso, {a tal ponto/de tal modo}*
 the mysticism is in retrogress, to such point / in such way
que a ciência vai em seu apoio.
 that the science goes in its support.
 ‘Mysticism is retrogressing, in such a way that science goes in its support.’
- b. *O misticismo está em retrocesso. {A tal ponto/de tal modo}*
 the mysticism is in retrogress. To such point / in such way
que a ciência vai em seu apoio.
 that the science goes in its support
 ‘Mysticism is retrogressing. So much / in such a way that science goes in its support.’
- c. *O misticismo está em retrocesso. {A tal ponto /de tal modo}*
 the mysticism is in retrogress. To such point / in such way
o misticismo está em retrocesso *que a ciência vai em seu apoio.*
 the mysticism is in retrogress that the science goes in its support
 ‘Mysticism is retrogressing. In such a way is mysticism retrogressing that science goes in its support.’

We assume that in the examples in (40a,b), a paratactic link connects the sentence containing the degree/quantifying expression and the consecutive to the previous related sentence: in (40a) this paratactic relation is graphically marked by the comma; in (40b) the full stop marks that two discursive independent sentences occur in juxtaposition. So, we admit that (40a) and (40b) may be analysed as in (41), where the clause that contains the intensifying words includes an elliptical expression and ‘||’ represents a sentence pause, as in (40a), or a strong discursive break, as in (40b):

- (41) *O misticismo está em retrocesso || {a tal ponto/de tal modo}*
 Mysticism is in retrogress || to such point/in such way
~~*o misticismo está em retrocesso*~~ *que a ciência vai em seu apoio.*
 is mysticism retrogressing that the science goes in its support

Considering the analysis proposed in (41), we assume that the free consecutives in (40) mainly differ from antecedent consecutives like (38), which scope out the whole antecedent sentence, by the fact that the graded antecedent is an elliptical sentence that occurs inside the DegP/QuantP, as represented in (42):

- (42) [_{DegP} [_{DegP/QuantP} *de tal modo* [_{CP} ~~*o misticismo está em retrocesso*~~]] [_{CP} [_{C+decl,+finite} *que*] [_{TP} *a ciência vai em seu apoio*]]]

Since the antecedent–of the free consecutive is elliptical, it requires a linguistic context that recovers its content, in the case, the previous sentence.

Notice that the type of paratactic connection that the free consecutive establishes with the previous sentence in (40a), where the free consecutive is separated from the related sentence by a comma, is less clear than the one in (40b), which presents sentence juxtaposition. However, based on the possibility of free alternation of (40a) with the corresponding coordinate sentences with overt conjunctions, we admit that sentences like (40a) are cases of asyndetic coordination. Consequently, we depart from Giusti's (1991), who suggests that the sentence including the free consecutive is an adjunct subordinate adverbial clause (cf. (36a)):

- (43) *O misticismo está em retrocesso, e/mas {a tal ponto/de tal modo} que a ciência vai em seu apoio.*
 the mysticism is in retrogress, and/but to such point/in such way
 that the science goes in its support.
 'Mysticism is retrogressing, and/but (the mysticism is retrogressing) in such a way that that science goes in its support.'

In sum, we assume that all cases of free consecutive constructions present a double status, being both hypotactic and paratactic. In fact the expression containing the gradable/quantifying expression is modified by a subordinate consecutive clause, but the whole sentence that includes the gradable/quantifying constituent and the consecutive is connected to the previous sentence by a paratactic relation of asyndetic coordination or juxtaposition.

The latter property in part explains the impossibility of reversing the order of the sentences or discourse fragments involved:

- (44) a. *{*A tal ponto /de tal modo*} *que a ciência vai em seu apoio,*
 to such point / in such way that the science goes in its support,
o misticismo está em retrocesso.
 the mysticism is in retrogress
 b. *{*A tal ponto /de tal modo*} *que a ciência vai em seu apoio.*
 to such point / in such way that the science goes in its support.
O misticismo está em retrocesso.
 The mysticism is in retrogress.

However, this analysis must be refined in order to account for sentences like (45), (46) and (47):

- (45) *Os estudantes fizeram muitos trabalhos de investigação. Tantos que no fim do semestre estavam exaustos.*
 the students made many works of research . So.many that at.the end of.the semester were exhausted
 ‘The students made many research assignments. So many that at the end of the semester they were exhausted.’
- (46) *Tremem as mãos à avó. Tanto que já não consegue escrever.*
 shake the hands to.the grandmother. So.much that already not can write
 ‘Grandmother’s hands shake. So much that she cannot write anymore.’
- (47) A - *A epidemia propagou-se depressa.*
 the plague spread-CL.3SG fast.
 ‘The plague spread fast.’
 B - *Muito depressa?*
 very fast?
 ‘How fast?’
 C - *Tanto que em dois dias a aldeia ficou contaminada.*
 so.much that in two days the village became infected
 ‘So fast that in two days all the village became infected.’

In these examples, the gradable or quantifying word does not intensify the entire elliptical sentence, but some constituent inside it. In fact, the antecedent of the free consecutive is an elided quantified expression that includes the following omitted constituents: the noun phrase *trabalhos de investigação* ‘research works’ in (45), the verb *tremem* ‘shake’ in (46), and verbal expression *espalhar (depressa)* ‘spread (fast)’ in (47), as illustrated in (48), for (45) and (47):

- (48) a. *Os estudantes fizeram muitos trabalhos de investigação. [Fizeram the students made many works of research . Made [tantos ~~trabalhos de investigação~~] que no fim do semestre estavam exaustos.*
 so.many works of research that at.the end of.the semester were exhausted
 ‘The students made many research assignments. (They made) so many (research assignments) that that at the end of the semester they were exhausted.’

- b. *Tremem as mãos à avó. [pro-tremem [tanto]] que*
 shake the hands to.the grandmother. shake so.much that
já não consegue escrever.
 already not can write
 ‘Grandmother’s hands shake. (They shake) so much that she cannot
 write anymore.’

As shown in (48), *tantos* is a degree/quantifying word that scopes over NPs, in the case *trabalhos de investigação* ‘research assignments’ (cf. (48a)), and *tanto* ‘so much’ is the core form of the corresponding quantifying adverbial of the verb.

The occurrence of (47C) immediately after *Muito depressa?* ‘very fast?’ in (47B) raises a problem: how to explain the invariable form *tanto* that intensifies the null correlate of the expression *espalhar depressa* ‘quickly spread’? Notice that in (47C), *tanto* ‘so much’ may only occur when *depressa* ‘quickly’ is not spelled out, otherwise the expression *tão depressa* ‘so quickly’ would be required.

- (49) a. (*A epidemia propagou-se*) *tanto que em dois dias a aldeia*
 (the plague spread) so.much that in two days the village
ficou contaminada.
 became infected
 ‘The plague spread so much that in two days the village became
 infected.’
 b. (*A epidemia propagou-se*) {*tão depressa* / **tanto depressa*}
 (the plague spread) {so quickly / so.much quickly}
que em dois dias...
 that in two days...

Thus, we conclude that in (47C) *tanto* ‘so much’ is a degree/quantifying adverbial of the verb *propagar-se* ‘to spread’, not of the adverb *depressa* ‘quickly’.

Now, considering the expressions *de tal modo* ‘in such a way’, *a tal ponto* ‘in such a way’ *tanto* ‘so much’ and *tantos* ‘so many’ in free consecutive clauses, we believe that they behave much like the gradable/quantifying expressions in antecedent finite consecutives. Similarly, the expressions *de tal modo* / and *a tal ponto* ‘in such a way’ may occur in antecedent consecutives as shown in (cf. (38b) and (50a)); when they appear in free relatives they intensify an elliptical gradable/quantifying expression (cf. (50b)):

- (50) a. *A menina está alta. Está {de tal modo /a tal ponto} alta que a roupa já não lhe serve.*
 the little.girl is tall. Is in such.a way /to such.a point tall that a cloth already not CL.3SG fit
 the cloth already not CL.3SG fit
- b. *A menina está alta. {De tal modo/a tal ponto} [AP ~~alta~~] que a roupa já não lhe serve.*
 the little girl is tall. In such.a way/to such.a point tall, that a cloth already not CL.3SG fit
 ‘The little girl is tall. She is so tall that her clothes do not fit her anymore.’

Finally, notice that in Portuguese the intensifying expressions *de tal modo*, *a tal ponto* ‘in such a way’, may alternate with *de modo tal*, *a um ponto tal*, which differ from them mainly by the order of occurrence of *tal*, with respect to *modo* and *ponto*. We take this fact as an evidence for the internal structure of these intensifying expressions. We assume that *modo* and *ponto* are merged in Deg, and *tal* is merged in Q, originating *modo tal*, *ponto tal*. Thus, we propose that the expressions *de tal modo* and *a tal ponto* ‘in such a way’ are derived in the following way: *modo* and *ponto* are merged in Deg, *tal* merges in Q and, then, raises to Deg, forming the complex *tal modo*, *tal ponto* (cf. (51a)).⁶ As for free consecutives starting with *tanto* ‘so much’ or *tantos* ‘so many’, *tanto(s)* is externally merged in Q and inherits degree features from Deg (cf. (51b)). In both cases, Q selects an omitted constituent: a CP, AP, or VP, when intensified by *de tal modo* and *a tal ponto* ‘in such a way’ (cf. XP in (51a)); an NP, when the quantifier is *tantos* ‘so many’; an ADVP, when Q is filled by *tanto* ‘so much’ (cf. (51b)):

- (51) a. [_{DegP} [_{DegP} P_{de/a} [_{Deg} tal [_Q [Q ~~tal~~] [XP]]] [_{CP}<+finite>]]]
 b. [_{DegP} [_{DegP} [_{Deg} +Deg_i] [_Q [Q tanto(s)_{De_{gi}}] [_{NP/ADVP} \emptyset]]] [_{CP}<+finite>]]]

In sum, it is possible to extend the core syntactic approach of antecedent consecutives to free consecutives and still capture their specificities as paratactic constructions.

⁶ Notice that this analysis faces the problem of accounting for the position of the prepositional particles *de* and *a* that occur in the initial position of the intensifying expressions *de tal modo* or *a tal ponto* ‘in such a way’. An alternative derivation would be the proposed in Corver (1997) for adjectival comparatives in English. In this case the expression *de tal modo* or *a tal ponto* ‘in such a way’ would be directly merged in Deg, and this functional category would select a null Q.

4. Main conclusions

All the constructions we have analysed are consecutive clauses, since they express the semantic dependency characteristic of consecutive clauses: the embedded clause is assumed as the result of the gradable property or the quantifying individual that occurs in the embedding sentence.

In consecutives with overt antecedents, we adopted the split degree hypothesis of Corver (1993, 1997a, b 2013), which has the advantage of separating determiner-like degree word and quantifier-like words. We also adopted Kennedy's (1997, 1999) and Corver's (2013) hypotheses that consecutive CPs are adjuncts that act as modifiers of a DegP, which form a unit with the degree/quantifying word at the level of LF. This analysis has been extended to infinitival and free consecutive clauses.

Three major properties characterise the so called free consecutives: (i) they include a subordinate clause that modifies the elliptical expression affected by the *gradable* or quantifying expression; (ii) the intensifying expression apparently occurs next to the sentence that contains the consecutive; (iii) the sentence including the *gradable*/quantifying expression and the consecutive establishes a relation of parataxis with the sentence that precedes it.

In consecutives the quantifying expression is understood as applying to a gradable unit, the antecedent of the consecutive. However, in free consecutives this gradable expression is an elided constituent, whose content must be recovered by the sentence to which it is paratactically related.

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